
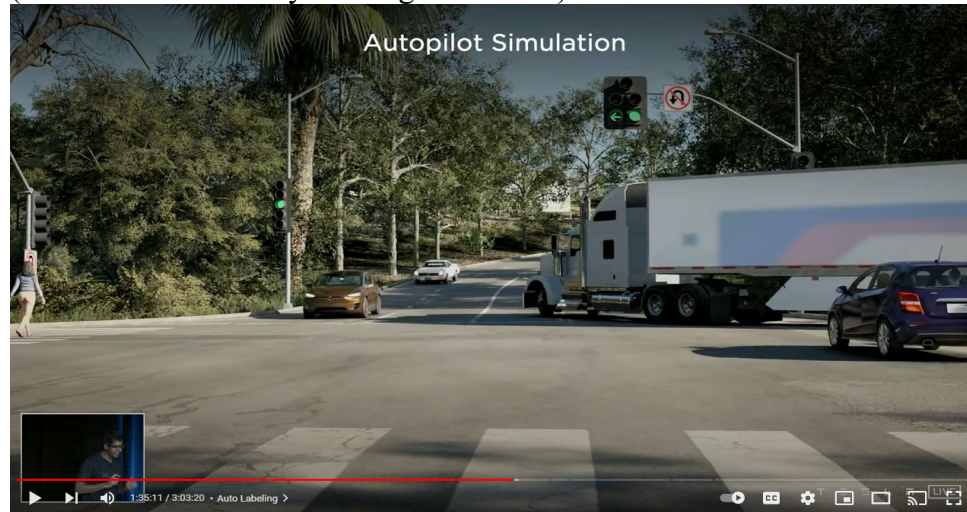


# **EXHIBIT M**

U.S. Patent No. 10,607,134	
Claim 1	Exemplary Infringement Evidence <sup>1</sup>
[1pre] A system comprising:	<p>The Dojo supercomputer infringes the '134 patent alone or together with Tesla vehicles operating Software Version 9.0 and beyond (this includes vehicles with enhanced autopilot and/or full self-driving (FSD)). The Dojo supercomputer alone or together with each of these vehicles meets the limitations of the claimed system.</p> <p>The discussion and evidence cited in claims [1a-e] are incorporated herein.</p> <ul style="list-style-type: none"> <li>- See Tesla Autonomy Day 2019 video <a href="https://www.youtube.com/watch?v=-b041NXGPZ8">https://www.youtube.com/watch?v=-b041NXGPZ8</a> at 53:32 (this is actually a screenshot of our own simulator. we use simulation extensively. we use it to develop and evaluate the software. we've also even used it for training quite successfully), 1:46:51 (this is taken from our actual simulation environment), 40:52 (we have quite a good a simulation too).</li> </ul>  <ul style="list-style-type: none"> <li>- See Tesla AI Day video <a href="https://www.youtube.com/watch?v=j0z4FweCy4M">https://www.youtube.com/watch?v=j0z4FweCy4M</a> at 1:35:05</li> </ul>

<sup>1</sup> These infringement contentions are prepared with publicly available information.

(we also invest heavily in using simulation)



- See Tesla AI Day video <https://www.youtube.com/watch?v=j0z4FweCy4M> at 1:35:36 (Simulation is a video game with Autopilot as the player)

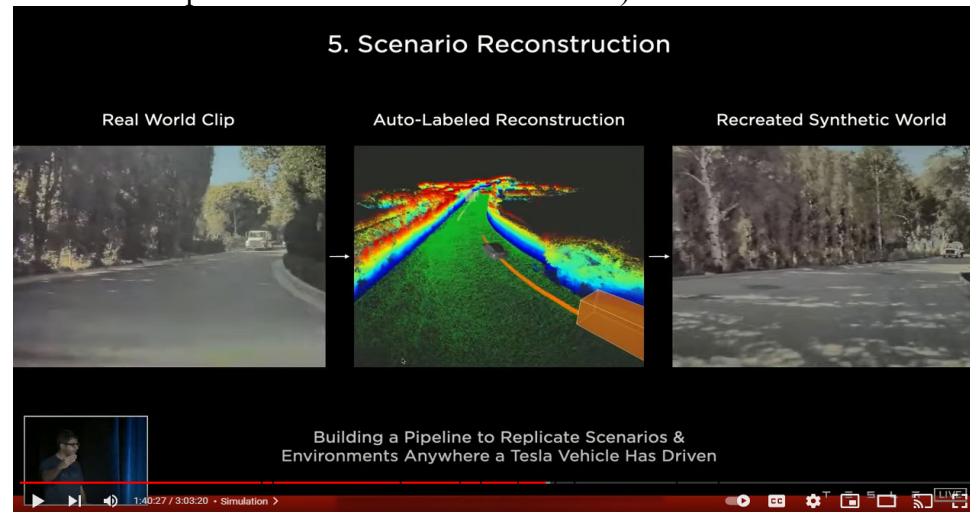


- See Tesla AI Day video <https://www.youtube.com/watch?v=j0z4FweCy4M> at 1:36:03

(since it's a simulation it starts from the vector space so it has perfect labels)



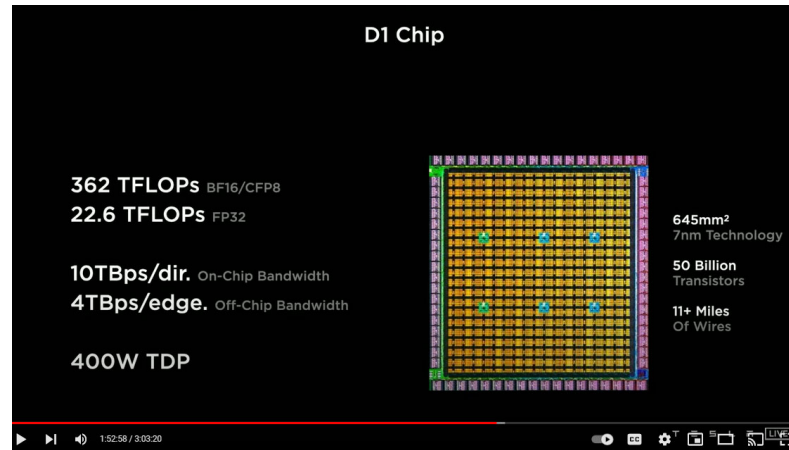
- See Tesla AI Day video <https://www.youtube.com/watch?v=j0z4FweCy4M> at 1:40:19 (we want to recreate any failures that happens to the autopilot in simulation so that we can hold autopilot to the same bar from then on)



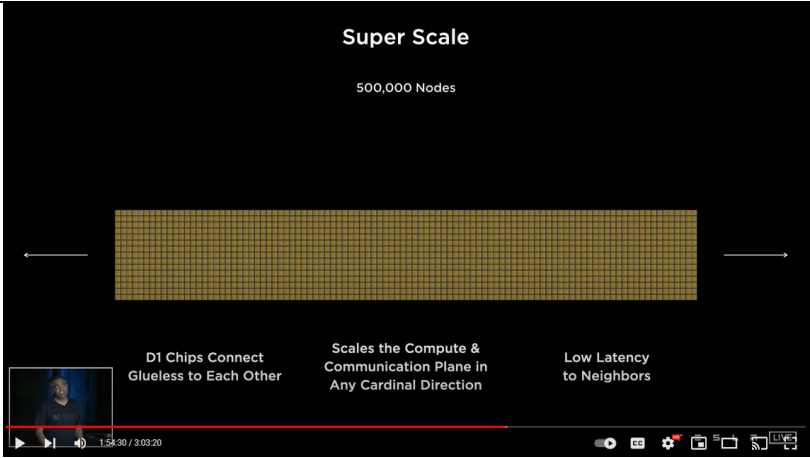
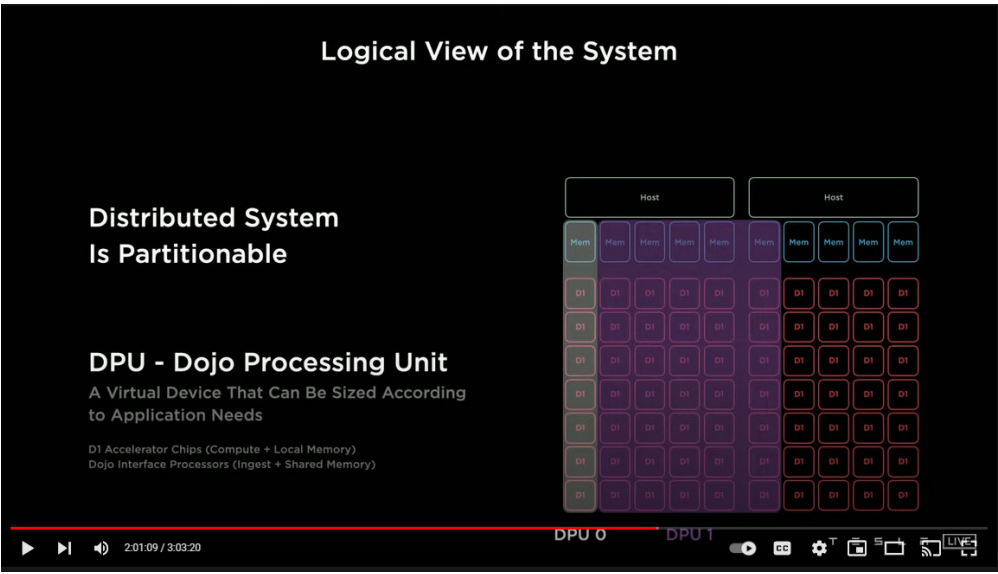
[1a] one or more processors; and

Tesla's autonomous vehicle simulation system includes one or more processors and one or more non-transitory machine readable media storing machine readable code that, when executed by the one or more processors, causes the one or more processors to perform the claimed features.

For example, the Dojo supercomputer includes one or more processors including one or more Dojo D1 chip(s).



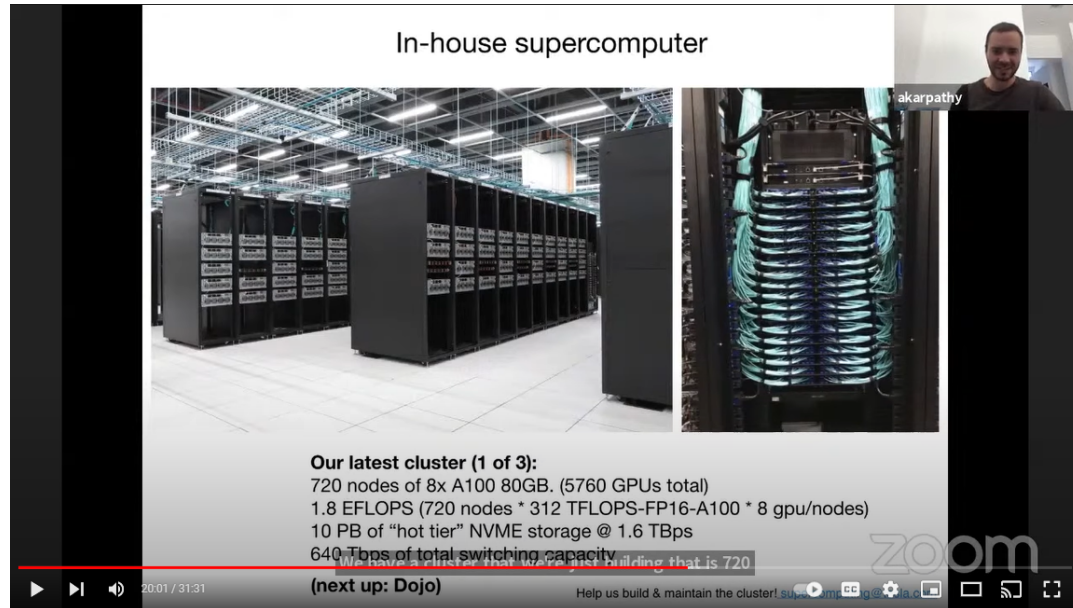
See Tesla AI Day video, available at <https://www.youtube.com/watch?v=j0z4FweCy4M&t=3s>

	<p><i>Id.</i></p>  <p><i>Id.</i></p> 
<p>[1b] one or more non-transitory machine readable media storing machine readable code that, when executed by the one or more</p>	<p>Tesla's autonomous vehicle simulation system includes memory for storing digital pictures correlated with one or more instructions sets for operating a first object of a first application program. The discussion and evidence cited in claims [1c-f] is incorporated herein.</p>

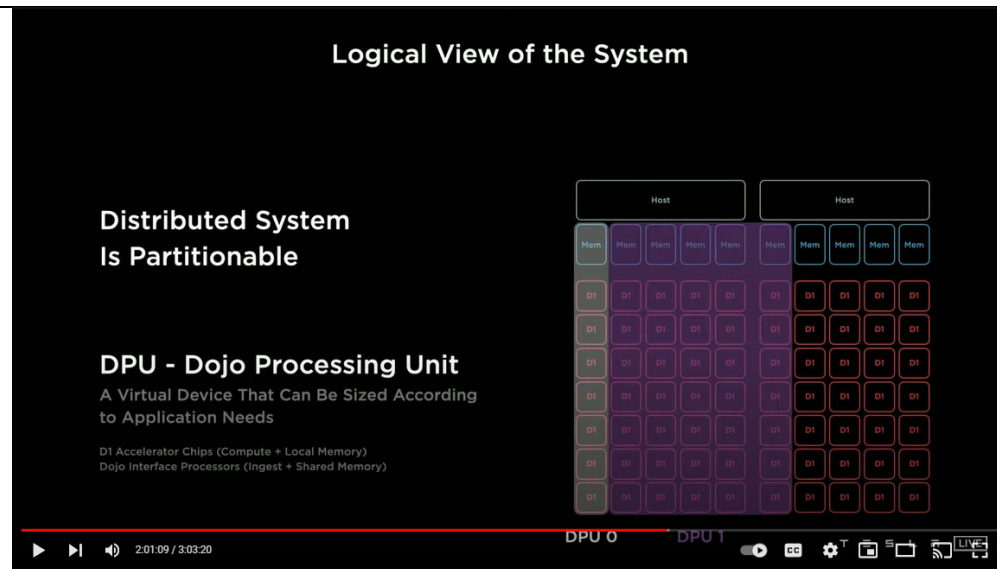


processors, causes the one or more processors to perform at least:

For example, Tesla's autonomous vehicle simulation system includes volatile and non-volatile storage, such as NVME or DRAM respectively, for storing executable machine readable code.



See, e.g., [CVPR'21 WAD] Keynote - Andrej Karpathy, Tesla, available at <https://www.youtube.com/watch?v=g6bOwQdCJrc>.



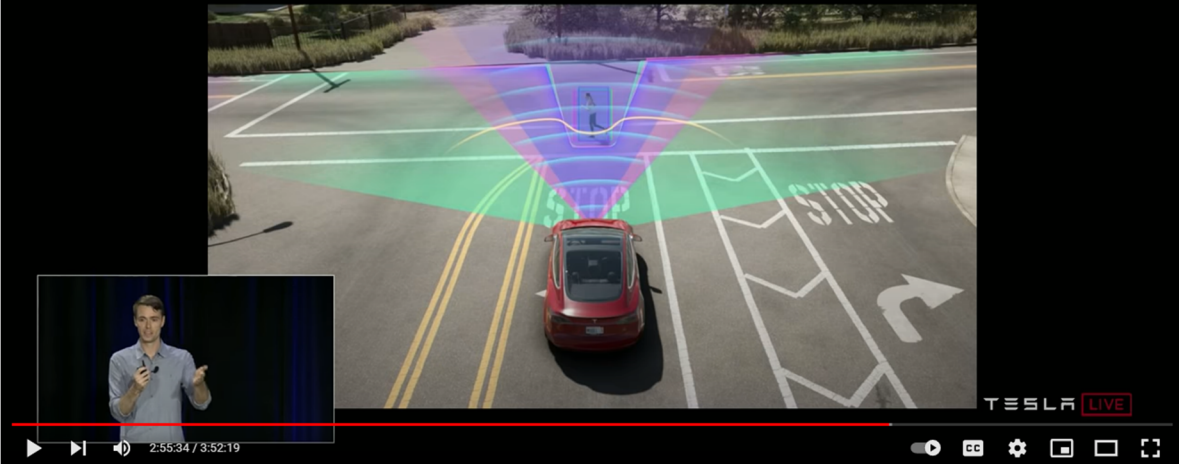
See Tesla AI Day video, available at <https://www.youtube.com/watch?v=j0z4FweCy4M&t=3s>

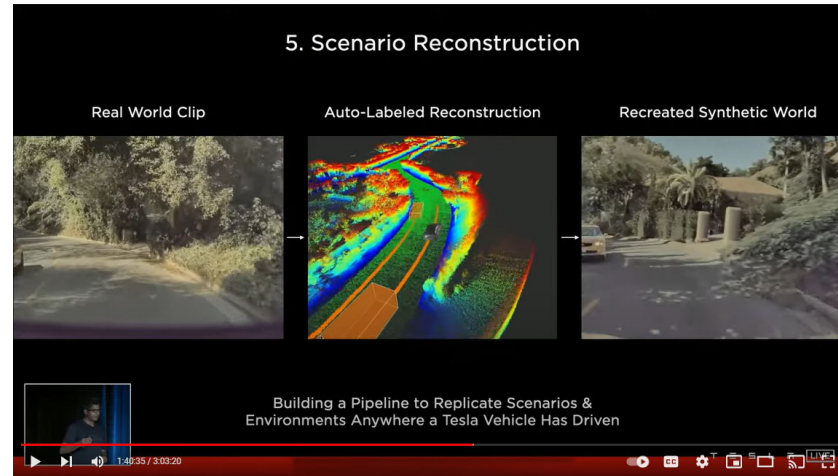
*"We do have a major program at Tesla which we don't have enough time to talk about today called "Dojo". That's a super powerful training computer. The goal of Dojo will be to be able to take in vast amounts of data and train at a video level and do unsupervised massive training of vast amounts of video with the Dojo program – or Dojo computer."*

[Elon Musk hints at Tesla's not-so-secret Dojo AI-training supercomputer capacity - Electrek](#)



	<p>Karpathy commented on the effort:</p> <p><i>"We have a neural net architecture network and we have a data set, a 1.5 petabytes data set that requires a huge amount of computing. So I wanted to give a plug to this insane supercomputer that we are building and using now. For us, computer vision is the bread and butter of what we do and what enables Autopilot. And for that to work really well, we need to master the data from the fleet, and train massive neural nets and experiment a lot. So we invested a lot into the compute. In this case, we have a cluster that we built with 720 nodes of 8x A100 of the 80GB version. So this is a massive supercomputer. I actually think that in terms of flops, it's roughly the number 5 supercomputer in the world."</i></p> <p><a href="https://www.inputmag.com/tech/tesla-showed-off-its-massive-supercomputer-for-self-driving-data-processing">https://www.inputmag.com/tech/tesla-showed-off-its-massive-supercomputer-for-self-driving-data-processing</a></p>
<p>[1c] accessing a first correlation including a first one or more object representations correlated with a first one or more instruction sets for operating a first avatar of an application, wherein the first one or more object representations represent one or more objects of the application;</p>	<p>Tesla's autonomous vehicle simulation system accesses a first correlation including a first one or more object representations correlated with a first one or more instruction sets for operating a first avatar of an application, and the first one or more object representations represent one or more objects of the application.</p> <p>For example, Tesla uses a supercomputer called DOJO to simulate real world driving environments using real world data and generated data. <a href="https://www.youtube.com/watch?v=g6bOwQdCJrc">https://www.youtube.com/watch?v=g6bOwQdCJrc</a> (14:30 to 15:30).</p> <p>Tesla's supercomputer is capable of behaving appropriately because the simulated car "avatar" is provided with driving instructions "first one or more instruction sets for operating a first avatar" that are correlated with object representations, e.g., simulated people, cars, traffic lights, traffic signs, etc. <a href="https://youtu.be/j0z4FweCy4M">https://youtu.be/j0z4FweCy4M</a> at 39 to 46 (showing simulated car in DOJO driving and reacting appropriately to cars, people, traffic signs, traffic lights, etc.); see also <a href="https://www.youtube.com/watch?v=6hkiTejoyms">https://www.youtube.com/watch?v=6hkiTejoyms</a> at 0:04 to 0:11 ("Today we are going to see how Tesla uses no less than a simulated game world to train their self-driving cars.").</p>

	<p style="text-align: center;">CONTROL FOR PEDESTRIANS</p>  <p>See <a href="https://www.youtube.com/watch?v=j0z4FweCy4M">https://www.youtube.com/watch?v=j0z4FweCy4M</a> at 2:55:34 (discussing an automatic emergency breaking system). As shown in the clip, each simulated Tesla vehicle has sensors such as cameras, etc. that are used to detect a first object representations, e.g., a pedestrian in front of the vehicle.</p>
<p>[1d] generating or receiving a second one or more object representations, wherein the second one or more object representations represent one or more objects of the application;</p>	<p>Tesla's autonomous vehicle simulation system generates or receives a second one or more object representations, and the second one or more object representations represent one or more objects of the application. <i>See</i> citations and analysis for claim element 1b. The any object representation that is similar to but different from the first object representation can correspond to the claimed second "object representation," e.g., a second pedestrian different from the first different pedestrian, can represent an object (e.g., person) in the simulated application on the DOJO supercomputer.</p> <p>For example, Tesla uses a supercomputer called DOJO to simulate real world driving environments for simulated Tesla Fleet vehicles using real world data and generated data.</p>



See Tesla AI Day video, available at <https://www.youtube.com/watch?v=j0z4FweCy4M&t=3s>



*Id.*

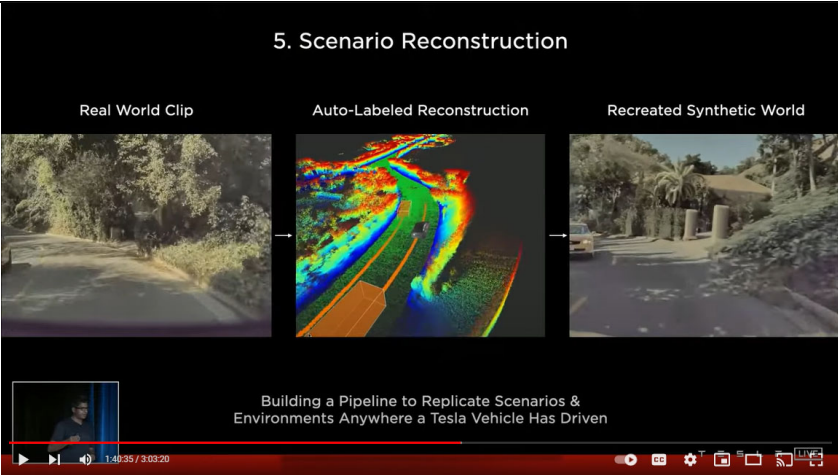
This real world and generated data includes video data, which includes object representations. Given that the video data is from the real world and generated simulations of real world

environments the object representations represent objects of the application. See, for example, the simulated environment below showing a simulation of a person near the simulated car from the first application program (DOJO AI simulation).



See Tesla AI Day video, available at <https://www.youtube.com/watch?v=j0z4FweCy4M&t=3s>

As shown in the above-cited video, Tesla's supercomputer is capable of behaving appropriately because the simulated car is provided with driving instructions that are correlated with objects, e.g., simulated people, cars, traffic lights, traffic signs, etc.

	 <p>See Tesla AI Day video, available at <a href="https://www.youtube.com/watch?v=j0z4FweCy4M&amp;t=3s">https://www.youtube.com/watch?v=j0z4FweCy4M&amp;t=3s</a></p>
<p>[1e] determining the first one or more instruction sets for operating the first avatar of the application based on at least partial match between the second one or more object representations and the first one or more object representations; and</p>	<p>Tesla's autonomous vehicle simulation system determines the first one or more instruction sets for operating the first avatar of the application based on at least partial match between the second one or more object representations and the first one or more object representations. For example, the DOJO simulation determines an instruction set (e.g., steer to the left) for operating the first simulated vehicle (first avatar) of the simulation application based on at least partial match between the second one or more object representations (e.g., pedestrian jogging on the right hand side of the road) and the first one or more object representations (e.g., a pedestrian on the right hand side of the car). <a href="https://electrek.co/2021/08/19/watch-tesla-ai-day-livestream-important-news/">https://electrek.co/2021/08/19/watch-tesla-ai-day-livestream-important-news/</a> at 38:45 to 39:00</p>
<p>[1f] at least in response to the determining, causing the first avatar of the application or a second avatar of the application to perform one or more operations defined by the first one or more instruction sets for operating the first avatar of the application at</p>	<p>Tesla's autonomous vehicle simulation system causes, at least in response to the determining, the first avatar of the application or a second avatar of the application to perform one or more operations defined by the first one or more instruction sets for operating the first avatar of the application at least by executing the first one or more instruction sets for operating the first avatar of the application. For instance, the DOJO simulation, in response to determining the person of the right hand side of the simulated car, causes the first avatar (simulated car) of the application to perform one or more operations defined by the first one or more instruction sets for operating the first avatar of the application (i.e., steers the car to the left) at least by</p>

least by executing the first one or more instruction sets for operating the first avatar of the application.	executing the first one or more instruction sets for operating the first avatar of the application. <a href="https://electrek.co/2021/08/19/watch-tesla-ai-day-livestream-important-news/">https://electrek.co/2021/08/19/watch-tesla-ai-day-livestream-important-news/</a> at 38:45 to 39:00.
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